****** CONFIDENTIAL ******
******PRE-DECISIONAL DOCUMENT ******
****** SUMMARY SCORESHEET ******
****** FOR COMPUTING PROJECTED HRS SCORE ******

****** Do Not Cite or Quote ******

Site Name: Niagara Falls Blvd

Region: Region 2

Scenario Name: NFB Site Score

City, County, State: Niagara Falls/Niagara, New York

Evaluator: D. Breen

EPA ID#: NYN000206699

Date: 06/09/2014

Lat/Long: 43:5:47,-78:57:10

Congressional District:

This Scoresheet is for: Combined PA/SI

Scenario Name: NFB Site Score

Description:

	S pathway	S^2 pathway
Ground Water Migration Pathway Score (S_{gw})	0.0	0.0
Surface Water Migration Pathway Score (S_{sw})	0.36	0.13
Soil Exposure Pathway Score (S_s)	0.71	0.5
Air Migration Score (S_a)	4.11	16.89
$S^2_{gw} + S^2_{sw} + S^2_s + S^2_a$		17.53
$(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4$		4.38
/ $(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4$		2.09

Pathways not assigned a score (explain):

TABLE 3-1 --GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Aquifer Evaluated: Aquifer			
Likelihood of Release to an Aquifer:			
1. Observed Release	550	0.0	
2. Potential to Release:			
2a. Containment	10	10.0	
2b. Net Precipitation	10	10.0	
2c. Depth to Aquifer	5	5.0	
2d. Travel Time	35	35.0	
2e. Potential to Release [lines 2a(2b + 2c + 2d)]	500	500.0	
3. Likelihood of Release (higher of lines 1 and 2e)	550		500.0
Waste Characteristics:			
4. Toxicity/Mobility	(a)	2000.0	
5. Hazardous Waste Quantity	(a)	10.0	
6. Waste Characteristics	100		10.0
Targets:			
7. Nearest Well	(b)	0.0	
8. Population:			
8a. Level I Concentrations	(b)	0.0	
8b. Level II Concentrations	(b)	0.0	
8c. Potential Contamination	(b)	0.0	
8d. Population (lines 8a + 8b + 8c)	(b)	0.0	
9. Resources	5	0.0	
10. Wellhead Protection Area	20	0.0	
11. Targets (lines 7 + 8d + 9 + 10)	(b)		0.0
Ground Water Migration Score for an Aquifer:			
12. Aquifer Score [(lines 3 x 6 x 11)/82,5000][c]	100		0.0
Ground Water Migration Pathway Score:			
13. Pathway Score (S_{gw}), (highest value from line 12 for all aquifers evaluated)[c]	100		0.0

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] Do not round to nearest integer

TABLE 4-1 --SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Watershed Evaluated: Watershed			
Drinking Water Threat			
Likelihood of Release:			
1. Observed Release	550	0.0	
2. Potential to Release by Overland Flow:			
2a. Containment	10	10.0	
2b. Runoff	10	1.0	
2c. Distance to Surface Water	5	6.0	
2d. Potential to Release by Overland Flow [lines 2a(2b + 2c)]	35	70.0	
3.Potential to Release by Flood:			
3a. Containment (Flood)	10	10.0	
3b. Flood Frequency	50	25.0	
3c. Potential to Release by Flood (lines 3a x 3b)	500	250.0	
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	320.0	
5. Likelihood of Release (higher of lines 1 and 4)	550		320.0
Waste Characteristics:			
6. Toxicity/Persistence	(a)	10000.0	
7. Hazardous Waste Quantity	(a)	10.0	
8. Waste Characteristics	100		18.0
Targets:			
9. Nearest Intake	50	0.0	
10. Population:			
10a. Level I Concentrations	(b)	0.0	
10b. Level II Concentrations	(b)	0.0	
10c. Potential Contamination	(b)	0.2	
10d. Population (lines 10a + 10b + 10c)	(b)	0.2	
11. Resources	5	5.0	
12. Targets (lines 9 + 10d + 11)	(b)		5.2
Drinking Water Threat Score:			
13. Drinking Water Threat Score [(lines 5x8x12)/82,500, subject to a max of 100]	100		0.36
Human Food Chain Threat			
Likelihood of Release:			
14. Likelihood of Release (same value as line 5)	550		320.0
Waste Characteristics:			
15. Toxicity/Persistence/Bioaccumulation	(a)	5.0E7	
16. Hazardous Waste Quantity	(a)	10.0	
17. Waste Characteristics	1000		100.0
Targets:			
18. Food Chain Individual	50	0.0	
19. Population			
19a. Level I Concentration	(b)	0.0	
19b. Level II Concentration	(b)	0.0	
19c. Potential Human Food Chain Contamination	(b)	0.0	
19d. Population (lines 19a + 19b + 19c)	(b)	0.0	
20. Targets (lines 18 + 19d)	(b)		0.0
Human Food Chain Threat Score:			
21. Human Food Chain Threat Score [(lines 14x17x20)/82500, subject to max of 100]	100		0.0
Environmental Threat			
Likelihood of Release:			
22. Likelihood of Release (same value as line 5)	550		320.0
Waste Characteristics:			
23. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	5.0E7	
24. Hazardous Waste Quantity	(a)	10.0	
25. Waste Characteristics	1000		100.0

Targets:			
26. Sensitive Environments			
26a. Level I Concentrations	(b)	0.0	
26b. Level II Concentrations	(b)	0.0	
26c. Potential Contamination	(b)	0.0	
26d. Sensitive Environments (lines 26a + 26b + 26c)	(b)	0.0	
27. Targets (value from line 26d)	(b)		0.0
Environmental Threat Score:			
28. Environmental Threat Score [(lines 22x25x27)/82,500 subject to a max of 60]	60		0.0
Surface Water Overland/Flood Migration Component Score for a Watershed			
29. Watershed Score[c] (lines 13+21+28, subject to a max of 100}	100		0.36
Surface Water Overland/Flood Migration Component Score			
30. Component Score (S_{sw})[c] (highest score from line 29 for all watersheds evaluated)	100		0.36

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] Do not round to nearest integer

TABLE 4-25 --GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Watershed Evaluated: Watershed			
Drinking Water Threat			
Likelihood of Release to an Aquifer:			
1. Observed Release	550	0.0	
2. Potential to Release:			
2a. Containment	10	0.0	
2b. Net Precipitation	10	0.0	
2c. Depth to Aquifer	5	0.0	
2d. Travel Time	35	0.0	
2e. Potential to Release [lines 2a(2b + 2c + 2d)]	500	0.0	
3. Likelihood of Release (higher of lines 1 and 2e)	550		0.0
Waste Characteristics:			
4. Toxicity/Mobility	(a)	0.0	
5. Hazardous Waste Quantity	(a)	0.0	
6. Waste Characteristics	100		0.0
Targets:			
7. Nearest Well	(b)	0.0	
8. Population:			
8a. Level I Concentrations	(b)	0.0	
8b. Level II Concentrations	(b)	0.0	
8c. Potential Contamination	(b)	0.0	
8d. Population (lines 8a + 8b + 8c)	(b)	0.0	
9. Resources	5	0.0	
10. Targets (lines 7 + 8d + 9)	(b)		0.0
Drinking Water Threat Score:			
11. Drinking Water Threat Score ([lines 3 x 6 x 10]/82,500, subject to max of 100)	100		0.0
Human Food Chain Threat			
Likelihood of Release:			
12. Likelihood of Release (same value as line 3)	550	0.0	
Waste Characteristics:			
13. Toxicity/Mobility/Persistence/Bioaccumulation	(a)	0.0	
14. Hazardous Waste Quantity	(a)	0.0	
15. Waste Characteristics	1000		0.0
Targets:			
16. Food Chain Individual	50	0.0	
17. Population			
17a. Level I Concentration	(b)	0.0	
17b. Level II Concentration	(b)	0.0	
17c. Potential Human Food Chain Contamination	(b)	0.0	
17d. Population (lines 17a + 17b + 17c)	(b)	0.0	
18. Targets (lines 16 + 17d)	(b)		0.0
Human Food Chain Threat Score:			
19. Human Food Chain Threat Score [(lines 12x15x18)/82,500,suject to max of 100]	100		0.0
Environmental Threat			
Likelihood of Release:			
20. Likelihood of Release (same value as line 3)	550		0.0
Waste Characteristics:			
21. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	0.0	
22. Hazardous Waste Quantity	(a)	0.0	
23. Waste Characteristics	1000		0.0
Targets:			
24. Sensitive Environments			
24a. Level I Concentrations	(b)	0.0	
24b. Level II Concentrations	(b)	0.0	

24c. Potential Contamination	(b)	0.0	
24d. Sensitive Environments (lines 24a + 24b + 24c)	(b)	0.0	
25. Targets (value from line 24d)	(b)		0.0
Environmental Threat Score:			
26. Environmental Threat Score [(lines 20x23x25)/82,500 subject to a max of 60]	60		0.0
Ground Water to Surface Water Migration Component Score for a Watershed			
27. Watershed Score[c] (lines 11 + 19 + 28, subject to a max of 100)	100		0.0
28. Component Score (S_{gs})[c] (highest score from line 27 for all watersheds evaluated, subject to a max of 100)	100		0.0

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] Do not round to nearest integer

TABLE 5-1 --SOIL EXPOSURE PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Likelihood of Exposure:			
1. Likelihood of Exposure	550		550.0
Waste Characteristics:			
2. Toxicity	(a)	10000.0	
3. Hazardous Waste Quantity	(a)	10.0	
4. Waste Characteristics	100		18.0
Targets:			
5. Resident Individual	50	0.0	
6. Resident Population:			
6a. Level I Concentrations	(b)	0.0	
6b. Level II Concentrations	(b)		
6c. Population (lines 6a + 6b)	(b)	0.0	
7. Workers	15	5.0	
8. Resources	5		
9. Terrestrial Sensitive Environments	(c)		
10. Targets (lines 5 + 6c + 7 + 8 + 9)	(b)		5.0
Resident Population Threat Score			
11. Resident Population Threat Score (lines 1 x 4 x 10)	(b)		49500.0
Nearby Population Threat			
Likelihood of Exposure:			
12. Attractiveness/Accessibility	100	50.0	
13. Area of Contamination	100	40.0	
14. Likelihood of Exposure	500		50.0
Waste Characteristics:			
15. Toxicity	(a)	10000.0	
16. Hazardous Waste Quantity	(a)	10.0	
17. Waste Characteristics	100		18.0
Targets:			
18. Nearby Individual	1	1.0	
19. Population Within 1 Mile	(b)	9.4	
20. Targets (lines 18 + 19)	(b)		10.4
Nearby Population Threat Score			
21. Nearby Population Threat (lines 14 x 17 x 20)	(b)		9360.0
Soil Exposure Pathway Score:			
22. Pathway Score[d] (S_s), [lines (11+21)/82,500, subject to max of 100]	100		0.71

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] No specific maximum value applies to factor. However, pathway score based solely on terrestrial sensitive environments is limited to a maximum of 60
[d] Do not round to nearest integer

TABLE 6-1 --AIR MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Likelihood of Release:			
1. Observed Release	550	0.0	
2. Potential to Release:			
2a. Gas Potential to Release	500	360.0	
2b. Particulate Potential to Release	500	280.0	
2c. Potential to Release (higher of lines 2a and 2b)	500	360.0	
3. Likelihood of Release (higher of lines 1 and 2c)	550		360.0
Waste Characteristics:			
4. Toxicity/Mobility	(a)	1000.0	
5. Hazardous Waste Quantity	(a)	10.0	
6. Waste Characteristics	100		10.0
Targets:			
7. Nearest Individual	50	20.0	
8. Population:			
8a. Level I Concentrations	(b)	0.0	
8b. Level II Concentrations	(b)	0.0	
8c. Potential Contamination	(c)	72.3	
8d. Population (lines 8a + 8b + 8c)	(b)	72.3	
9. Resources	5	0.0	
10. Sensitive Environments:			
10a. Actual Contamination	(c)	0.0	
10b. Potential Contamination	(c)	1.79	
10c. Sensitive Environments (lines 10a + 10b)	(c)	1.79	
11. Targets (lines 7 + 8d + 9 + 10c)	(b)		94.09
Air Migration Pathway Score:			
12. Pathway Score (S_a) [(lines 3 x 6 x 11)/82,500][d]	100		4.11

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] No specific maximum value applies to factor. However, pathway score based solely on sensitive environments is limited to a maximum of 60.
[d] Do not round to nearest integer